



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,193	02/18/2004	Chun-Hsiung Chen	DEE-PT151	1756
3624	7590	04/01/2005	EXAMINER	
VOLPE AND KOENIG, P.C. UNITED PLAZA, SUITE 1600 30 SOUTH 17TH STREET PHILADELPHIA, PA 19103			HAM, SEUNGSOOK	
			ART UNIT	PAPER NUMBER
			2817	

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

EV

Office Action Summary	Application No. 10/781,193	Applicant(s) CHEN, CHUN-HSIUNG	
	Examiner Seungsook Ham	Art Unit 2817	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities:

In the specification and claims, "resister" should be corrected to --resistor--, and "suppressor" to --suppressor--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4-8 and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Koike (US Pat. Appl. Publ. '130).

Koike (figs. 2 and 3) discloses a high-frequency signal suppressor comprising: a resistor 211 consisted of an output resistance of a complementary metal-oxide-semiconductor (paragraphs [0040], [0042]) and having a first terminal serving as an input terminal 13 of the high frequency signal suppressor; a first capacitor C12 having a first terminal connected to a high voltage source VDD and a second terminal connected to a second terminal N1 of the resistor; a second capacitor C11 having a first terminal connected to the first capacitor and the resistor N1; and a second terminal connected to

Art Unit: 2817

a low voltage source VSS; a shaping circuit comprised of a SCHMITT trigger circuit 14 having an input terminal connected to the first and second capacitors and resistor, and an output terminal serving as an output terminal of the high-frequency signal suppressor; and wherein a high-frequency signal inputted from the input terminal of the high-frequency signal suppressor is filtered by the resistor; first and second capacitors, and then shaped by the shaping circuit so as to generate a logic signal at the output terminal of the high-frequency signal suppressor (paragraphs [0039-0044]).

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-7, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Verhaeghe et al. (US '132).

Verhaeghe et al. (figs. 4A-4C) discloses a high-frequency signal suppressor comprising: a resistor 38 having a first terminal serving as an input terminal 52 of the high frequency signal suppressor; a first capacitor 42 having a first terminal connected to a high voltage source (col. 3, lines 14-25) and a second terminal connected to a second terminal of the resistor; a second capacitor 40 having a first terminal connected to the first capacitor and the resistor; and a second terminal connected to a low voltage source (col. 3, lines 14-25); a shaping circuit comprised of a SCHMITT trigger circuit 48 having an input terminal connected to the first and second capacitors and resistor, and an output terminal serving as an output terminal of the high-frequency signal suppressor; and wherein a high-frequency signal inputted from the input terminal of the high-frequency signal suppressor is filtered by the resistor; first and second capacitors, and then shaped by the shaping circuit so as to generate a logic signal at the output

Art Unit: 2817

terminal of the high-frequency signal suppressor (col. 5, line 55- col. 6, line 12).

Moreover, the first and second capacitors are comprised of a metal-oxide-semiconductor (figs. 4B and 4C).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koike (US Pat. Appl. Publ. '130) in view of Verhaeghe et al. (US '132).

Koike does not show the first and second capacitors can be MOS capacitors, or input parasitic capacitors of the shaping circuit. However, MOS capacitors are well known in the art as shown by Verhaeghe et al. (figs. 4B and 4C).

It would have been obvious to one of ordinary skill in the art to use MOS capacitors as the first and second capacitors in the device of Koike since both capacitors are functionally equivalent as shown by Verhaeghe et al.

Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Verhaeghe et al. (US '132) in view of Koike (US Pat. Appl. Publ. '130).

Verhaeghe et al. does not show the resistor can be an output resistance of a CMOS, a metal-oxide-semiconductor resistor, a transmission gate, a poly-Si or a quantum well. However, such resistors are well known in the art. Koike (fig. 2) discloses a similar circuit using CMOS circuit 211 as a resistor. It would have been

Art Unit: 2817

obvious to one of ordinary skill in the art to use an output resistance of a CMOS as the resistor in the device of Verhaeghe et al. since such design technique is well known in the art as shown by Koike.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over McClure (US '457) in view of Koike (US Pat. Appl. Publ. '130) or Verhaeghe et al. (US '132).

McClure (fig. 2) discloses the same high-frequency signal suppressor except a shaping circuit. However, McClure teaches that the input buffer 16 can be any types of buffers (col. 4, lines 20-25).

Koike (fig. 2) discloses a similar high-frequency signal suppressor coupled to an input buffer comprised of a shaping circuit (e.g., SCHMITT trigger, see claim 11). Verhaeghe et al. (fig. 4A) also discloses a similar signal suppressor coupled to an buffer circuit comprised of a shaping circuit (col. 2, lines 35-42).

It would have been obvious to one of ordinary skill in the art use a shaping circuit as the input buffer in the device of McClure since shaping circuit is a well known input buffer circuit as shown by Koike or Verhaeghe et al.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Takata (US '319) discloses a noise limiter coupled to a low-pass filter.

Art Unit: 2817

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Seungsook Ham whose telephone number is (571) 272-2405. The examiner can normally be reached on Monday-Thursday, 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Seungsook Ham
Primary Examiner
Art Unit 2817

sh